MASS NOTIFICATION SYSTEM

The State of Montana, Department of Military Affairs is soliciting proposals for installation of a Mass Notification/Communication System at Fort Harrison, Montana.

Successful contractor will supply all materials, expertise and labor necessary to provide a comprehensive notification system capable of providing real-time emergency and essential information to personnel located on Fort Harrison, building occupants as well as individuals using outside facilities. Contractor will include start-up and training for designated National Guard personnel, State of Montana personnel or contracted personnel. Training will be sufficient to ensure immediate operation of the system and minor problem solving.

Installed system will have the following performance capabilities –

System offered must be compatible with Dialogic Corporation's "*The Communicator"* system recommended by National Guard Bureau.

Speech and voice clarity must be intelligible, natural sounding, free of distortion so that personnel easily understand information or directions. Verbal directives provided through the system must be intelligible throughout the cantonment area and designated training sites.

Klaxon, electronic sounders, alarms, sirens, etc. must be audible throughout the cantonment area and designated training sites.

System must be radio frequency based (wireless). Montana Army National Guard will provide frequencies.

System must include computer system w/software configured to provide optimum operation. System will be programmable via computer.

Minimum of two controllers, Main Gate and Emergency Operations Center (EOC).

Where battery power is used for speaker operation, necessary heating unit(s) will be included to ensure units will function properly.

System must minimize noise bleed to populated areas adjacent to the Fort, generally to the east.

System will comprise freestanding towers or building mounted speakers.

Climate at Fort Harrison ranges from winter temperatures of 30 degrees below zero to summer temperatures above 100 degrees Fahrenheit. Exterior mounted equipment must be weather resistant.

Contractor will recommend locations and exterior hardware. Speaker arrays may be mounted free-standing poles or on existing buildings.

STATEMENT OF WORK/PERFORMANCE OF REQUIREMENTS

PROJECT LOCATION: FORT HARRISON MONTANA

PROJECT TITLE: MASS NOTIFICATION SYSTEM FOR FORT HARRISON MONTANA NATIONAL GUARD

1. GENERAL

1.1 Performance work statement: Provide a proposal for a Mass Notification System (MNS) utilizing existing hardware, software, and facility equipment for Fort Harrison, Montana in accordance with local written guidance, this document, and other applicable industry-wide standards. In addition, the contractor shall furnish all equipment, material, tools, test equipment, and labor necessary to provide a turnkey operation for a Mass Notification System. The system shall be of modular design to facilitate both expansion and service. The MNS shall be completely solid state.

1.1. The term "Contractor" shall refer to the Principals and staff of the contractor, his/her consultants, and subcontractors. The term "Contracting Officer" shall refer to the Contracting Officer and his/her designated representative. The project manager may also be the Contracting Officer Representative (COR).

1.2. Prospective contractors or their representative shall attend the **mandatory** pre-proposal site visit scheduled for 10:00 a.m., Friday September 22, 2006 at Annex I, Building 1007, Fort Harrison, Montana. Based on the specifications and information discussed at the pre-proposal meeting, and any letter(s) of clarification or addenda issued, contractor will prepare and submit proposal for this project.

1.3. All data, reports, and materials generated by this performance work statement are the property of the Government and may not be distributed without prior, written approval of the Contracting Officer. All material will be returned to the Government upon request due to security concerns. The contractor shall safeguard the materials.

1.4. Delete

1.7. All site conditions shall be field verified by the Contractor. Instrumental surveys in connection with location or verification of underground utilities or concealed features, required for this survey and cost estimate shall be accomplished by the Government. It shall be the responsibility of the Government to verify all underground utilities and structures on the project site required for proper operation. The Contractor shall notify the Contracting Officer of any Government assistance needed for providing labor or tools to obtain needed access to secure or protect enclosures. The Contractor shall notify the Directorate of Installation Support of any utilities to be located. The Directorate of Installation Support generally requires 5 working days to locate the utilities. The Contractor is responsible for correctly submitting the proper paperwork.

1.8. All contractual, financial, or technical questions shall be addressed to the Contracting Officer. The Contracting Officer shall distribute the technical questions to the Project Manager, which will be addressed timely.

2. PERIOD OF SERVICE

2.1. The Contractor shall indicate completion dates in proposal.

3. SCOPE OF WORK
3.1. Modifications to this Statement of Work/Performance of Requirements shall be as authorized by the Contracting Officer. Authorized modifications shall be integrated into the project by the Contractor. Change Orders must be approved by the Contracting Officer prior to implementing any changes or additions.

3.2. The specific parameters for this project are:

3.2.1 The Final Mass Notification System Plan submitted by the Contractor shall address all elements of the project. A map of Fort Harrison is available at the listed website.

3.2.2. Contractor Requirements
The contractor shall furnish all equipment, material, tools, test equipment, expertise and labor necessary to provide a turnkey operation for a Mass Notification System required for this project. The system shall be of modular design to facilitate both expansion and service. The MNS shall be completely solid state.

3.2.3 Operational Concept

The MNS system shall be operated from 1 main controller point (Emergency Operations Center) with an optional controller point (Main Gate).

3.2.3.1 Operational Controller (GVC): There will be two controller positions. The primary controller location is at the Emergency Operations Center, Building 1900 (Helena Armed Forces Reserve Center). An alternative/backup controller location shall be at Main Gate. The MNS Giant Voice Controllers (GVC) shall communicate with Giant Voice Towers (GVT), and will conduct polling, silent tests, alarm tone activations, pre-recorded message activations; live voice broadcasts and music, and shall be capable of communicating with the Telephone Alerting System (Dialogic Communicator), integration with existing Internal Public Address Systems at Fort Harrison. The GVC shall communicate with the GVT via two way encoder/decoder that will transmit and receive Frequency Shift Keying (FSK) signals using a radio, fiber glass omni antenna, antenna cable and antenna polyphasor.

3.2.3.2 Remote Sites (GVT): Each remote site for each zone shall include a field control unit, and adjustable loudspeaker assembly capable of focusing the sound energy into 90 Degree, 180 Degree, 270 Degree, or 360 Degree Omni-Directional Pattern. The exact locations of the siren/speaker sites will have to be determined during a joint site survey between the contractor and the Government. The GVTs will be positioned and located to minimize echoes, while providing the capability to simultaneously hear announcements and messages from a variety of different directions without substantial sound delays. Each field control unit shall include electronic controlled assemblies, radio control assemblies, pre-recorded digital message board with capability ranges from 2 minutes to 60 minutes, Class D audio amplifiers, batteries, chargers, mounting brackets, and all parts necessary to control the sound system. All equipment and parts shall be housed in a modular, mountable cabinet. The field control cabinet shall be pre-assembled, pre-wired, and pre-connectorized. Pre-connectorized means that the supplied material is able to be connected to where it is required with what it is required to be or possibly be connected with. The field control unit shall have lightning protection.

3.2.3.3. Speakers and Drivers: Each loudspeaker assembly shall be selectable 90, 180, 270 degree, or 360 degree omni-directional. The speaker assemblies shall have the capability of up to a 30 degree downward tilt to facilitate the focusing of the sound energy into specific areas. Each loudspeaker assembly shall be supplied with an appropriate type driver compressor to provide the necessary sound pressure level (SPL) measured at 100 feet to cover a specified zone. The sound pressure level at the perimeter of each zone shall not be less than 70db based on FEMA "Inverse Square Loss' Law", 10db attenuation loss per doubled distance. The sound output of acoustic devices at ground level shall not be more than 123 dBc and shall not be less than 70 dBc based upon recommendations of the Committee on Hearing, Bioacoustics and Biomechanics (CHABA) of the National Academy of Science and FEMA. The speaker assembly and amplifier shall be able to handle continuously up to 3 minutes of siren tones, messages, and music without any overheated problem.

3.2.3.4 Radio Equipment: The MNS shall be equipped with all required radio equipment, antenna, and interface for supporting radio control via VHF or UHF fixed frequency. The radio equipment shall be FCC certified and support narrow-band as mandated by the National Telecommunications and Information Administration (NTIA).

3.2.3.5 UPS: Each field control unit at the remote site shall be equipped with a minimum rated UPS of 30 minutes backup time.

3.2.3.6: The State will supply mobile or auxiliary generators, if required.

3.2.3.7 Poles: The contractor shall provide and install the poles, if required. Poles shall be designed with sufficient Effective Projected Area (EPA), sufficient base yield strength, sufficient anchor bolts yield strength, and concrete foundation (if necessary) to accept the total weight of the sound system and any attachments thereon under the velocity pressure of wind up to 86.8 knots or 100 MPH.

3.2.3.7.1 Material: Poles, as needed, shall be wooden or galvanized steel and properly finished as to inhibit deterioration and corrosion.

3.2.3.7.2 Height: Height of loudspeaker assembly should be mounted at the top of tower or pole. The minimum mounting height must be based on the rated output of warning device in dBc at 100 ft to avoid risk of hearing damage to pedestrians. The maximum pole height shall not exceed 60 ft from the ground.

3.2.3.8 Electrical Requirements: The contractor shall provide and install electrical power feeders to the pole and tower locations in coordination with the Directorate of Installation Support. The sound system shall be able to operate on 120 VAC, 1 phase, 50/60 Hz with a current draw of equal or less than 10 AMP. If the system differs, the contractor shall note the issue(s) in the submittal.

3.2.4 Other information:
The contractor shall process and coordinate with the Facility Management Office preparation before a construction start. The contractor must coordinate with the Project Manager before working on this project to obtain restrictions. The environment is very important to Fort Harrison. The contractor shall be required to bring all historical, archaeological, or environmental concerns to the attention of the project manager

immediately for resolution. If any archaeological site is found, the contractor is to stop work and wait for a contracting officer determination.

3.2.4.1 All exposed hardware at the field shall be weatherproof. The exposed metal surfaces shall be properly finished as to inhibit deterioration and corrosion.

3.2.4.2 Each exterior sound system, in the field, shall have lightning protection and grounding systems bonded to the earth ground rod in accordance with the latest edition of the National Electric Code.

3.2.4.3 Handling and control of Equipment: The contractor shall be responsible for all handling and control of the equipment including loading, unloading, packing, unpacking, inventory, inspection and security. The government will provide a secure, dry storage area.

3.2.4.4 Commercial Manuals: The contractor shall provide commercial manuals for all equipment installed for this project. The manuals shall include user guides, description, installation, test, operation and maintenance. The contractor is not responsible for existing commercial equipment manuals. The contractor is required to be able to show the inter-connections both hardware and software between the present and future systems.

3.2.4.5 Technical Supported Documents: The contractor shall provide technical supported documents, manuals, brochures, and specification sheets for each proposed product with the technical proposal.

3.2.4.6 Training: The contractor shall provide initial training on how to operate the MNS system for a minimum of four government representatives. Training shall include manuals or materials appropriate to the curriculum. The contractor shall provide a VHS videotape and DVD-ROM of the training.

3.2.4.7 Warranty: All equipment shall include at least 1-year warranty for parts and labor from the date the equipment was placed in service.

3.2.4.8 Maintenance Services: The contractor shall provide to the Government the scopes, definitions, terms and conditions of maintenance services.

3.2.4.9 Government Supports (Requirements):
Department of Military Affairs will provide the name and contact information for the Project Manager and at least one other individual with the authority to review and approve work on the project

3.2.4.9.1 Landline: Not required.

3.2.4.9.2 VHF or UHF Frequency: The Government will provide a VHF or UHF frequency for radio control.

4. SUBMITTAL REQUIREMENTS

4.1 Contractor will submit completed Bid Proposal by deadline indicated.

4.2. Contractor will include drawings clearly showing locations of equipment.